



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,015	03/25/2002	Hideki Fujiwara	F-7369	9145

28107 7590 08/23/2005
JORDAN AND HAMBURG LLP
122 EAST 42ND STREET
SUITE 4000
NEW YORK, NY 10168

EXAMINER

CHARLES, MARCUS

ART UNIT	PAPER NUMBER
3682	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,015

Applicant(s)

FUJIWARA ET AL.

Examiner

Marcus Charles

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10, 16, 19 and 22 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-7, 9, 11, 12, 14, 15, 17, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 3, 7, 8, 13 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the amendment filed 06-08-2005, which has been entered.

Claims 1-22 are currently pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 11-12, 14, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (5, 517,957) in view of Christy (4,073,552). Wagner et al. discloses a pulley unit (fig. 4) comprising a pulley body (42), a shaft body (50) concentrically disposed in the inner diameter side of the pulley, a one way clutch (48), interposed in the annular space between the hollow shaft body and the pulley body, a roller bearing (45) disposed in the annular spaced between the pulley body and the hollow shaft body such that the inner surface (44, 46) of the pulley body in the annular space and the outer surface of the shaft body in the annular groove forms the inner and outer raceway of the clutch and roller bearing, a seal ring (54, 55) disposed on each axial end of the annular space, a retainer (not labeled) for accommodating each roller elements of the rolling bearing and the clutch. Wagner et al. do not disclose the retainer of the roller bearing has an annular portion having outer cylindrical circumferential surface having a first retainer diameter and extending axially inwards from the annular portion, a second retainer diameter greater than the first retainer

Art Unit: 3682

diameter and at least one radially planer surface extending from the outer cylindrical circumferential surface to the second retainer diameter thereby defining a step annular portion and the second retainer diameter. Christy disclose a bearing unit comprising a bearing retainer (17) having an annular portion (18) including an outer cylindrical circumferential surface having a first retainer diameter and extending axially inwards from the annular portion, a second retainer diameter (18) greater than the first retainer diameter and at least one radially planer surface extending from the outer cylindrical circumferential surface to the second retainer diameter thereby defining a step annular portion and the second retainer diameter for extending the life storage of the stored lubricant and maintaining structural rigidity of the retainer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the retainer of Wagner et al. to include the first and second diameter stepped diameter of Christy for extending the life storage of the stored lubricant and maintaining structural rigidity of the retainer.

outer diameter and the seal in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the retainer of Wagner et al. so that the retainer has a reduced diameter in view of Kajihara et al. in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely.

In claim 17, note the roller bearing (49) and the ball bearing (46).

In claim 21, it is apparent that the outer diameter of the ball bearing (45) is set

larger than that of the roller bearing (49).

Claims 4-5, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al in view of Christy as applied to claim 1 above, and further in view of Kajihara et al. Wagner et al. does not disclose that one of the roller bearings is a ball bearing having a retainer such that the retainer having an annular portion with an inner diameter side tapered which increases the volume towards the axial outer end. Kajihara et al. disclose a bearing unit comprising a ball bearing having a bearing retainer (5) with a reduced outer diameter section (5w-a) defining a tapered section in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the retainer of Wagner et al. so that the retainer has a reduced diameter in view of Kajihara et al. in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. in view of Christy as applied to claim 1 above, and further in view of Doi et al.(6,367,982). Wagner et al. and Kajihara et al. do not disclose that the roller is made from resin and includes oil. Doi et al. discloses a bearing comprising rollers (5) made from resin and that it is well known for such rollers to include lubricating oil in order to reduce maintenance, reduce friction and improve the life span of the system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the rollers of Wagner et al. to include rollers made from resin and including lubricating oil in view of Doi et al. in order to reduce maintenance, reduce

friction and improve the life span of the system.

Allowable Subject Matter

4. Claims 10, 16, 19 and 22 are allowed.
5. Claims 3, 7-8, 13 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments


6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.
7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (571) 272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Marcus Charles
Primary Examiner
Art Unit 3682
August 15, 2005